

INFLUENCE OF IRRIGATION TERMINATION TIMES AND VINES DESICCATION METHODS ON QUANTITATIVE AND PERCENTAGE OF SKINNED POTATO TUBERS .

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ABSTRACT

A study was conducted during the spring seasons of 2001 and 2002 years on potato tubers (*Solanum tuberosum* L.) Desiree cv. (class-A). Potato seeds were planted on Jan. 16 and 17 for the two seasons respectively .

The experiment included 21 treatments resulted from three times of terminating irrigation which they were 12, 8 and 4 days before the date of lifting tubers, beside seven vines desiccation methods: 8 days by hand, 8 days by gramoxone, 4 days by hand, 4 days by gramoxone, 2 days by hand, 2 days by gramoxone and by hand directly before tubers lifting as (control). Quantitative characteristics were recorded after lifting tubers.

No significant effects of the times of terminating irrigation was detected on each of the:- number of tubers / plant, individual plants yield, marketable yield and total yield for both seasons, whereas terminating irrigation 8 days before lifting potato tubers significantly reduced the percentage of skinning tubers to 54.76%. However, terminating irrigation 4 days before tuber lifting significantly increased this percentage to 66.07% for the first season.

As far as vines desiccation is concerned the results indicated that hand cutting 4 days before tubers lifting caused a significant increased in the average number of tubers/plant to 10.43, plant yield to 0.66 kg/plant, marketable yield to 7.58 ton/donum and the total yield to 8.28 ton/donum in a comparison with the gramoxone desiccation 8 days before tuber lifting which resulted in a significant decreased in the number of tubers/plant to 8.20, plant yield to 0.50 kg/plant, marketable yield to 5.74 ton/donum and the total yield to 6.25 ton/donum in the first season.

In the second season, on the other hand , cutting method of vines directly before tuber lifting time significantly increased the plant yield to 1.25 kg/plant, marketable yield to 14.77 ton/donum and total yield to 15.62 ton/donum. In the contrast, the gramoxone killing method of vine 4 days before tubers lifting significantly reduced the plant yield to 1.05 km/plant, marketable yield to 11.93 ton/donum and total yield to 13.17 ton/donum. It is important to say that the vines cutting by hand 8 days before tubers lifting time, significantly decreased the percentage of skinned tubers to 29.96% as compared with the hand vine

cutting 2 days before lifting time which was significantly increased this percentage to 53.25%.